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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,473	11/29/2000	Kenneth Curry	24406	5303

7590  
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05/31/2002

EXAMINER

ANDERSON, REBECCA L

ART UNIT PAPER NUMBER

1626

DATE MAILED: 05/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/673,473

Applicant(s)

CURRY ET AL.

Examiner

Rebecca L Anderson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-21 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Due to the numerous variables in the claims, e.g. R1, R'1, R2, R3, R4, R5, R6, R7, R8, R9, etc., and their widely divergent meanings, a precise listing of inventive groups can not be made. The following groups are exemplary:

**Group I** claim(s) 1-4, 6, and 11-13 drawn to products of the formula (I) wherein R1 is carboxyl, R2 is 1°-3° amino, R3 is -CH<sub>2</sub>-thioxanthyl, and R4 is carboxyl.

**Group II** claim(s) 1-4, 6, and 11-13 drawn to products of the formula (I) wherein R1 is carboxyl, R2 is 1°-3° amino, R3 is -CH<sub>2</sub>-xanthyl, and R4 is carboxyl.

**Group III** claim(s) 5 drawn to the process for preparing compounds of the formula (I) wherein R1 is carboxyl, R2 is 1°-3° amino, R3 is xanthyl, and R4 is carboxyl.

**Group IV** claim(s) 7, and 14-17 drawn to methods of modulating metabotropic glutamate receptor functions with the compounds of the formula (I) wherein R1 is carboxyl, R2 is 1°-3° amino, R3 is thioxanthyl, and R4 is carboxyl.

**Group V** claim(s) 8 drawn to compounds of the formula (II) wherein R1 is carboxyl, R4 is carboxyl, and R5 is a (2-6C) alkanoyl group.

**Group VI** claim(s) 18-19 drawn to compounds of the formula (IIb) wherein R'1 is carboxyl, and R3 is H.

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**Group VII** claim(s) 9, and 20-21 drawn to compounds of the formula (III) wherein R1 is carboxyl, R4 is carboxyl, R6 is a hydrogen or a (1-4C) alkyl group, and R7 is a hydrogen atom or a (1-4C) alkyl group.

**Group VIII** claim(s) 10 drawn to compounds of the formula (IV) wherein R1 is carboxyl, R4 is carboxyl, R8 is carboxyl, and R9 is hydrogen.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted. Again, this list is not exhausted as it would be impossible under the time constraints due to the sheer volume of subject matter instantly claimed. Therefore, applicant may choose to elect a single invention by identifying another specific embodiment not listed in the exemplary groups of the invention and examiner will endeavor to group the same. If applicant wishes to elect subject matter other than that identified in the above groups, applicant may elect a species (e.g. 4-carboxycubane-1-methylglycine) and examiner will endeavor to group it.

The claims herein lack unity of invention under PCT Rule 13.1 and 13.2 since the compounds defined in the claims lack a significant structural element qualifying as the special technical feature that defines a contribution over the prior art. Claims 8, 9, 10, and 18 clearly have a different special technical feature than that of the cubane derivative of claim 1 (i.e. claim 9 has hydantoin substituted cubane), and the compounds in inventions I-IV contain a cubane derivative, which does not define a contribution over the prior art. The substituents on the cubane derivative vary extensively and when taken as a whole result in vastly different compounds. Accordingly, unity of invention is considered to be lacking and restriction of the invention

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in accordance with the rules of unity of invention is considered to be proper.

Additionally, the vastness of the claimed subject matter, and the complications in understanding the claimed subject matter imposes a burden on any examination of the claimed subject matter.

### Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rebecca L. Anderson whose telephone number is (703) 605-1157. Mrs. Anderson can normally be reached Monday through Friday 7:00AM to 3:30PM.

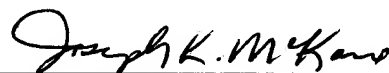
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph McKane, can be reached at (703) 308-4537.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone numbers are (703) 308-1235 and (703) 308-0196.

A facsimile center has been established. The hours of operation are Monday through Friday, 8:45AM to 4:45PM. The telecopier numbers for accessing the facsimile machine are (703) 308-4242, (703) 305-3592, and (703) 305-3014.



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